

10/780,298

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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FILE 'HOME' ENTERED AT 11:54:45 ON 03 MAY 2005

FILE 'REGISTRY' ENTERED AT 11:54:52 ON 03 MAY 2005
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 MAY 2005 HIGHEST RN 849658-68-0
DICTIONARY FILE UPDATES: 2 MAY 2005 HIGHEST RN 849658-68-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
* The CA roles and document type information have been removed from
* the IDE default display format and the ED field has been added,
* effective March 20, 2005. A new display format, IDERL, is now
* available and contains the CA role and document type information.
*****

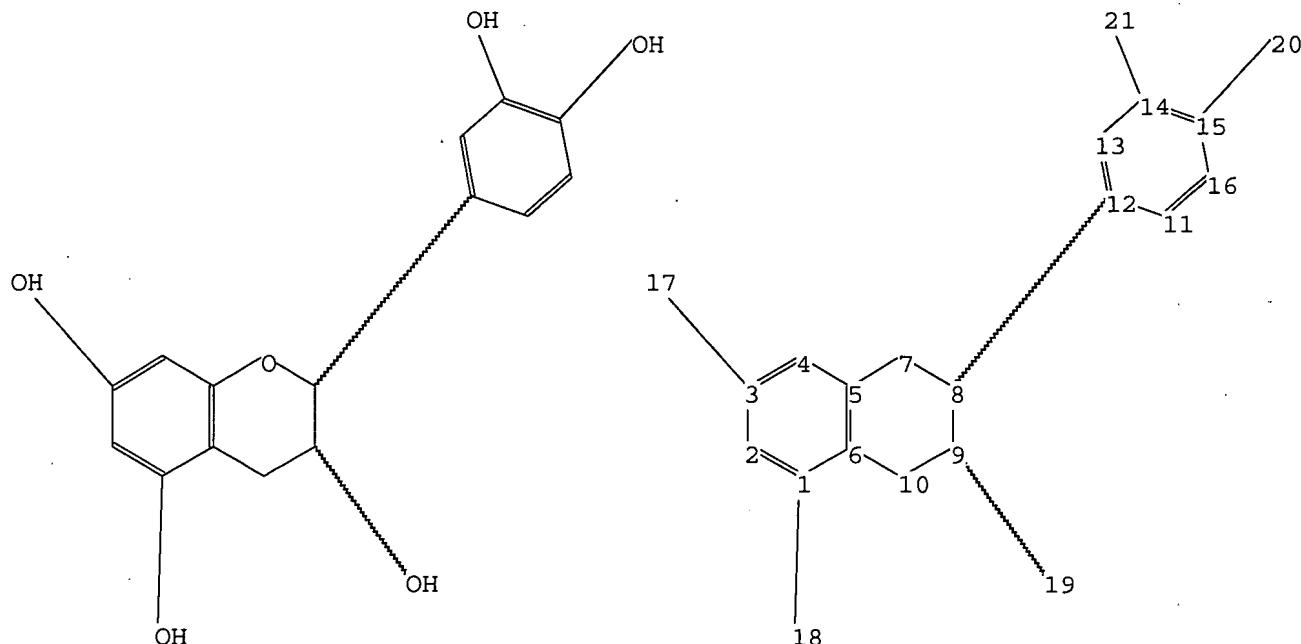
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10780298.str

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chain nodes :

17 18 19 20 21

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

chain bonds :

1-18 3-17 8-12 9-19 14-21 15-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
14-15 15-16

exact/norm bonds :

1-18 3-17 5-7 6-10 7-8 8-9 9-10 9-19 14-21 15-20

exact bonds :

8-12

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 11:55:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 964 TO ITERATE

100.0% PROCESSED 964 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

50 ANSWERS

10/780,298

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 17418 TO 21142
PROJECTED ANSWERS: 1282 TO 2438

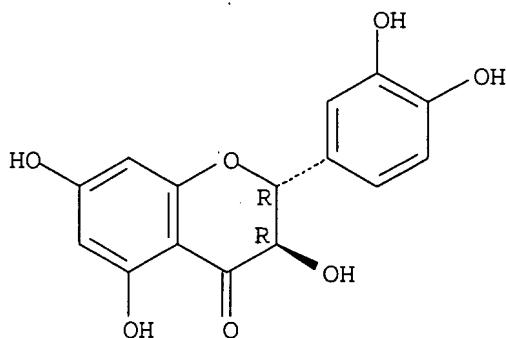
L2 50 SEA SSS SAM L1

=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN L-Ascorbic acid, mixt. with (2R,3R)-2-(3,4-dihydroxyphenyl)-2,3-dihydro-
3,5,7-trihydroxy-4H-1-benzopyran-4-one (9CI)
MF C15 H12 O7 . C6 H8 O6
CI MXS

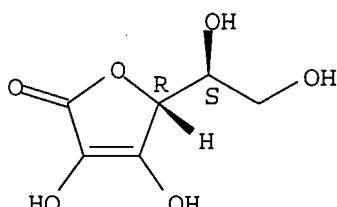
CM 1

Absolute stereochemistry. Rotation (+).



CM 2

Absolute stereochemistry.



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 11 ful
FULL SEARCH INITIATED 11:55:52 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 18783 TO ITERATE

100.0% PROCESSED 18783 ITERATIONS
SEARCH TIME: 00.00.01

1681 ANSWERS

L3 1681 SEA SSS FUL L1

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=> file caplus			
COST IN U.S. DOLLARS		SINCE FILE	TOTAL
		ENTRY	SESSION
FULL ESTIMATED COST		161.76	161.97

FILE 'CAPLUS' ENTERED AT 11:55:57 ON 03 MAY 2005
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FILE COVERS 1907 - 3 May 2005 VOL 142 ISS 19
FILE LAST UPDATED: 2 May 2005 (20050502/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13
L4 10858 L3

=> s 14 and (platelet or anti-platelet or thrombos?)
98290 PLATELET
52318 PLATELETS
113704 PLATELET
(PLATELET OR PLATELETS)
366680 ANTI
9 ANTIS
366687 ANTI
(ANTI OR ANTIS)
98290 PLATELET
52318 PLATELETS
113704 PLATELET
(PLATELET OR PLATELETS)
1122 ANTI-PLATELET
(ANTI (W) PLATELET)
23501 THROMBOS?
L5 89 L4 AND (PLATELET OR ANTI-PLATELET OR THROMBOS?)

=> s 15 and oligomer
37502 OLIGOMER
47581 OLIGOMERS
67774 OLIGOMER
(OLIGOMER OR OLIGOMERS)
L6 3 L5 AND OLIGOMER

=> d 16 ibib hitstr abs 1-3

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L6 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:462854 CAPLUS
DOCUMENT NUMBER: 141:17617
TITLE: Composition for, and methods of, anti-platelet therapy using procyanidin-containing cocoa extracts
INVENTOR(S): Romanczyk, Leo J., Jr.; Schmitz, Harold H.
PATENT ASSIGNEE(S): Mars, Incorporated, USA
SOURCE: U.S., 72 pp., Cont.-in-part of U.S. Ser. No. 831,245.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

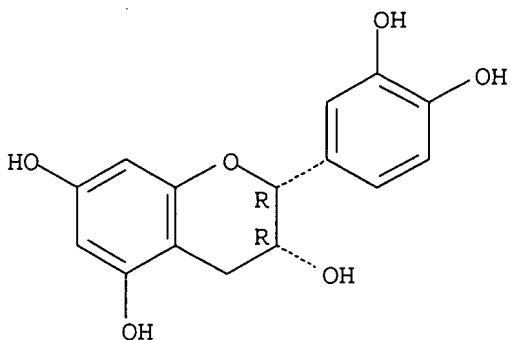
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6747059	B1	20040608	US 1999-459171	19991210
US 6297273	B1	20011002	US 1997-831245	19970402
KR 2000005259	A	20000125	KR 1998-707952	19981002
US 6469053	B1	20021022	US 2000-507717	20000218
WO 2001041775	A2	20010614	WO 2000-US33531	20001210
WO 2001041775	A3	20020117		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6696485	B1	20040224	US 2002-268718	20021010
US 2004228936	A1	20041118	US 2004-780298	20040217
PRIORITY APPLN. INFO.:			US 1996-631661	B2 19960402
			US 1997-831245	A2 19970402
			US 1999-459171	A2 19991210
			US 2000-507717	A2 20000218
			US 2000-717893	A1 20001121
			US 2001-776649	A1 20010205
			US 2002-127817	A1 20020422

IT 490-46-0, Epicatechin 13392-26-2 13392-26-2D,
oligomers
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(procyanidin-containing cocoa extract for anti-platelet
therapy)

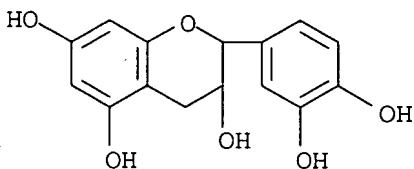
RN 490-46-0 CAPLUS
CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,
(2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

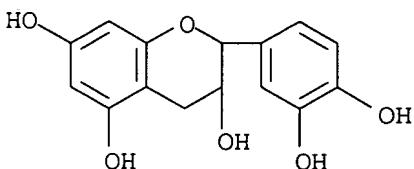
10/780,298



RN 13392-26-2 CAPLUS
CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro- (9CI)
(CA INDEX NAME)



RN 13392-26-2 CAPLUS
CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro- (9CI)
(CA INDEX NAME)



AB Cocoa exts. which include procyanidin monomers and their **oligomers** are useful in the modulation of inflammatory pathways, in the maintenance of the vascular health of a mammal and as an antibacterial treatment. The liquid or dry cocoa exts. can be included in foods, food supplements and pharmaceuticals for the inhibition of COX activity, the inhibition of LOX activity, the enhancement of nitric oxide production, the modulation of eicosanoids and endothelin, and the modulation of **platelet** activity.

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:732498 CAPLUS

DOCUMENT NUMBER: 140:4477

TITLE: Dietary flavanols and procyanidin **oligomers** from cocoa (*Theobroma cacao*) inhibit **platelet** function

AUTHOR(S): Murphy, Karen J.; Chronopoulos, Andriana K.; Singh,

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Indu; Francis, Maureen A.; Moriarty, Helen; Pike, Marilyn J.; Turner, Alan H.; Mann, Neil J.; Sinclair, Andrew J.

CORPORATE SOURCE: Dept. of Food Science and the School of Medical Sciences, RMIT University, Melbourne, 5005, Australia

SOURCE: American Journal of Clinical Nutrition (2003), 77(6), 1466-1473

PUBLISHER: American Society for Clinical Nutrition

DOCUMENT TYPE: Journal

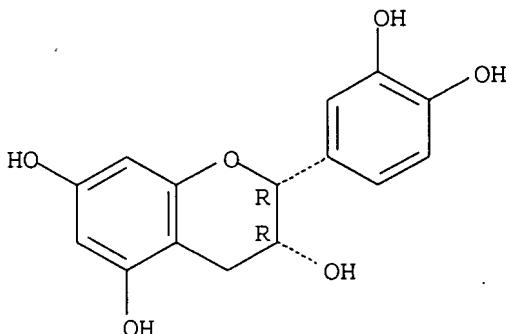
LANGUAGE: English

IT 490-46-0, (-)-Epicatechin 35323-91-2, (+)-Epicatechin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dietary flavanols and procyanidin **oligomers** from cocoa
inhibit **platelet** function)

RN 490-46-0 CAPLUS

CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,
(2R,3R)- (9CI) (CA INDEX NAME)

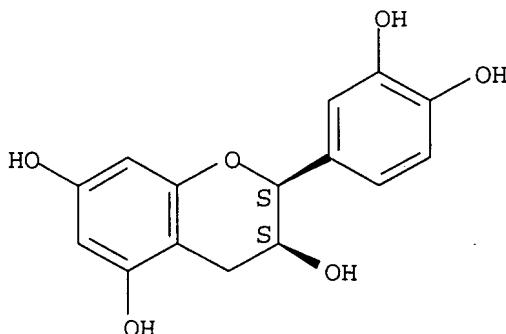
Absolute stereochemistry. Rotation (-).



RN 35323-91-2 CAPLUS

CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,
(2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



AB Flavonoids may be partly responsible for some health benefits, including antiinflammatory action and a decreased tendency for the blood to clot. An acute dose of flavanols and oligomeric procyanidins from cocoa powder inhibits **platelet** activation and function over 6 h in humans.

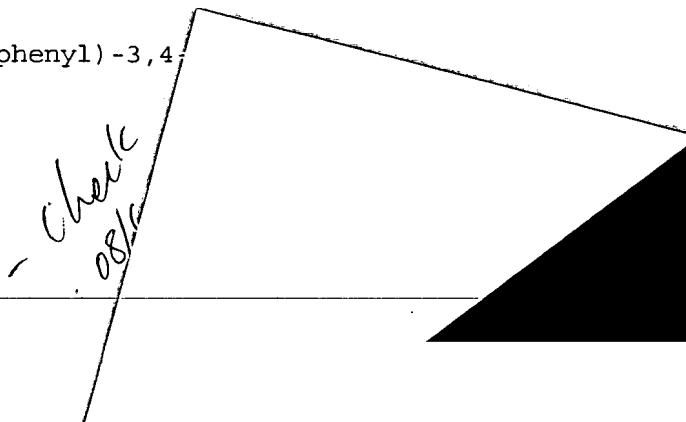
10/780,298

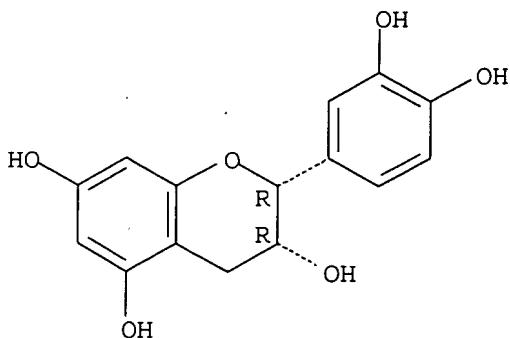
This study sought to evaluate whether 28 d of supplementation with cocoa flavanols and related procyanidin **oligomers** would modulate human **platelet** reactivity and primary hemostasis and reduce oxidative markers in vivo. Thirty-two healthy subjects were assigned to consume active (234 mg cocoa flavanols and procyanidins/d) or placebo (\leq 6 mg cocoa flavanols and procyanidins/d) tablets in a blinded parallel-designed study. **Platelet** function was determined by measuring **platelet** aggregation, ATP release, and expression of activation-dependent **platelet** antigens by using flow cytometry. Plasma was analyzed for oxidation markers and antioxidant status. Plasma concns. of epicatechin and catechin in the active group increased by 81% and 28%, resp., during the intervention period. The active group had significantly lower P selectin expression and significantly lower ADP-induced aggregation and collagen-induced aggregation than did the placebo group. Plasma ascorbic acid concns. were significantly higher in the active than in the placebo group ($P < 0.05$), whereas plasma oxidation markers and antioxidant status did not change in either group. Cocoa flavanol and procyanidin supplementation for 28 d significantly increased plasma epicatechin and catechin concns. and significantly decreased **platelet** function. These data support the results of acute studies that used higher doses of cocoa flavanols and procyanidins.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:246227 CAPLUS
DOCUMENT NUMBER: 137:181462
TITLE: Polyphenols of cocoa: inhibition of mammalian 15-lipoxygenase
AUTHOR(S): Schewe, Tankred; Sadik, Christian; Klotz, Lars-Oliver; Yoshimoto, Tanihiro; Kuhn, Hartmut; Sies, Helmut
CORPORATE SOURCE: Institut fur Physiologische Chemie I, Heinrich-Heine-Universitat Dusseldorf, Dusseldorf, D-40001, Germany
SOURCE: Biological Chemistry (2001), 382(12), 1687-1696
CODEN: BICHF3; ISSN: 1431-6730
PUBLISHER: Walter de Gruyter GmbH & Co. KG
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 490-46-0, (-)-Epicatechin 970-74-1, Epigallocatechin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(cocoa polyphenols inhibit rabbit and human 15-LOX-1, porcine leukocyte 12/15-lipoxygenase and recombinant human **platelet** 12-lipoxygenase)
RN 490-46-0 CAPLUS
CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-(2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

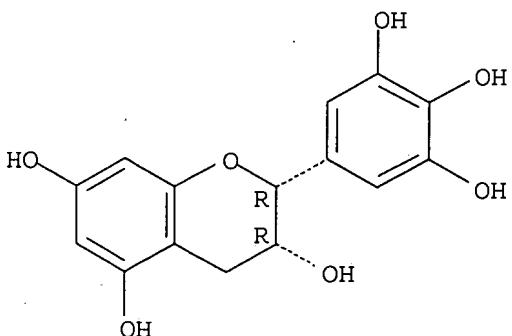




RN 970-74-1 CAPLUS

CN 2H-1-Benzopyran-3,5,7-triol, 3,4-dihydro-2-(3,4,5-trihydroxyphenyl)-(2R,3R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



AB Some cocoas and chocolates are rich in (-)-epicatechin and its related **oligomers**, the procyanidins. Fractions of these compds., isolated from the seeds of *Theobroma cacao*, caused dose-dependent inhibition of isolated rabbit 15-lipoxygenase-1 with the larger **oligomers** being more active; the decamer fraction revealed an IC₅₀ of 0.8 μ M. Among the monomeric flavanols, epigallocatechin gallate (IC₅₀ = 4 μ M) and epicatechin gallate (5 μ M) were more potent than (-)-epicatechin (IC₅₀ = 60 μ M). (-)-Epicatechin and procyanidin nonamer also inhibited the formation of 15-hydroxy-eicosatetraenoic acid from arachidonic acid in rabbit smooth muscle cells transfected with human 15-lipoxygenase-1. In contrast, inhibition of the lipoxygenase pathway in J774A.1 cells transfected with porcine leukocyte-type 12-lipoxygenase (another representative of the 12/15-lipoxygenase family) was only observed upon sonication of the cells, suggesting a membrane barrier for flavanols in these cells. Moreover, epicatechin (IC₅₀ approx. 15 μ M) and the procyanidin decamer inhibited recombinant human **platelet** 12-lipoxygenase. These observations suggest general lipoxygenase-inhibitory potency of flavanols and procyanidins that may contribute to their putative beneficial effects on the cardiovascular system in man. Thus, they may provide a plausible explanation for recent literature reports indicating that procyanidins decrease the leukotriene/prostacyclin ratio in humans and human aortic endothelial cells.

REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/780,298

=> d hist

(FILE 'HOME' ENTERED AT 11:54:45 ON 03 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:54:52 ON 03 MAY 2005

L1 STRUCTURE UPLOADED
L2 50 S L1
L3 1681 S L1 FUL

FILE 'CAPLUS' ENTERED AT 11:55:57 ON 03 MAY 2005

L4 10858 S L3
L5 89 S L4 AND (PLATELET OR ANTI-PLATELET OR THROMBOS?)
L6 3 S L5 AND OLIGOMER

=> s 15 and oligom?

102236 OLIGOM?

L7 4 L5 AND OLIGOM?

=> dup rem 16 17

PROCESSING COMPLETED FOR L6

PROCESSING COMPLETED FOR L7

L8 4 DUP REM L6 L7 (3 DUPLICATES REMOVED)

=> d 18 ibib hitstr abs. 4

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:964594 CAPLUS
DOCUMENT NUMBER: 141:406143
TITLE: Method and composition for preventing or reducing
edema, deep vein **thrombosis** and/or pulmonary
embolism
INVENTOR(S): Riordan, Neil H.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004223962	A1	20041111	US 2003-647131	20030822
WO 2004100879	A2	20041125	WO 2004-US14010	20040505
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			US 2003-468948P	P 20030507

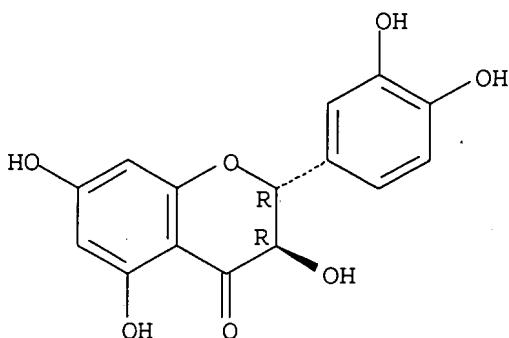
10/780,298

US 2003-647131

A 20030822

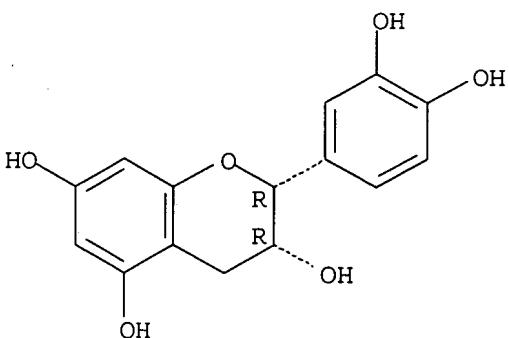
IT 480-18-2, Taxifolin 490-46-0, Epicatechin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(method and composition for preventing or reducing edema, deep vein
thrombosis and/or pulmonary embolism)
RN 480-18-2 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-
trihydroxy-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 490-46-0 CAPLUS
CN 2H-1-Benzopyran-3,5,7-triol, 2-(3,4-dihydroxyphenyl)-3,4-dihydro-,
(2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



AB The present invention relates to a composition and method for preventing or reducing edema, deep vein **thrombosis** (DVT), and/or pulmonary embolism by administering a combination of a fibrinolytic agent and an antioxidant. The composition is particularly useful for treating individuals prior to or during long term flights or other situations involving extended immobility.

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

53.12

215.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL